

CLAIMS

1. A toolholder for a machine tool having a shaft rotatable on a machining operation axis and having a conically tapered socket extending axially inwardly from an end face of said shaft, said toolholder comprising:

a round body for rotation on said machining axis, said body having a tool holding end, a tapered shank end for placement in said tapered socket of said shaft, and a radially extending flange adjacent said tapered shank, said flange having an annular surface facing said shank; and

a ring of elastic, vibration dampening material adapted to fit over said round toolholder body between said annular flange surface and said tapered shank, said ring having a thickness so that it is compressed between said flange surface and said end face of said shaft when said shank has been placed in said socket for a machining operation.

2. The toolholder as recited in claim 1 in which said ring comprises a vinyl rubber.

3. The toolholder as recited in claim 1 in which said ring comprises a polyurethane material.

4. The toolholder as recited in claim 1 in which said ring comprises a fibrous mat.

5. A method of reducing vibration during operational use of a cutting tool carried in a toolholder and powered through the interface of said toolholder with a machine tool spindle where said interface comprises a spindle with a tapered socket for said toolholder; and said toolholder comprises a tapered shank for insertion into said socket, and a flange face

adjacent said shank and spaced from said spindle when said shank is inserted in said socket, said method comprising:

placing a vibration damping spacer of elastic material between said flange face and said spindle, said damping spacer being compressed between said toolholder flange and said spindle during operation of said cutting tool.

6. The method as recited in claim 5 in which said vibration damping spacer is a ring of elastic material.

7. The method as recited in claim 5 in which said elastic material comprises a vinyl rubber.

8. The method as recited in claim 5 in which said elastic material comprises a polyurethane material.

9. The method as recited in claim 5 in which said elastic material comprises a fibrous mat.

10. A method of reducing vibration during operational use of a cutting tool carried in a V-flange tapered toolholder and powered through the interface of said toolholder with a machine tool spindle where said interface comprises a spindle with a tapered socket for said toolholder; and said toolholder comprises a tapered shank for insertion into said socket, and a flange face adjacent said shank and spaced from said spindle when said shank is inserted in said socket, said method comprising:

placing a vibration damping spacer of elastic material between said flange face and said spindle, said damping spacer being compressed between said toolholder flange and said spindle during operation of said cutting tool.

11. The method as recited in claim 10 in which said vibration damping spacer is a ring of elastic material.

12. The method as recited in claim 10 in which said elastic material comprises a vinyl rubber.

13. The method as recited in claim 10 in which said elastic material comprises a polyurethane material.

14. The method as recited in claim 10 in which said elastic material comprises a fibrous mat